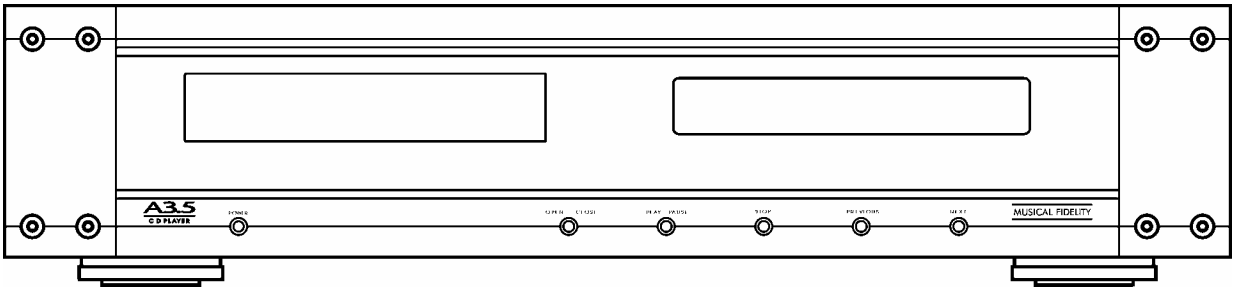
A3.5
CD PLAYER

UPSAMPLING 24 BIT COMPACT DISC PLAYER



INSTRUCTIONS FOR USE

Thank you for purchasing the Musical Fidelity A3.5 24 bit CD Player.

Used properly and carefully, it should give many years of outstanding musical reproduction.

This model uses the latest 24 Bit DAC technology and jitter reduction techniques to achieve both an excellent technical specification and unparalleled sound quality.

Aesthetically, the A3.5 CD is a perfect match for the A3.5 Integrated Amplifier. Together these components form one of the finest hi-fi systems available.

Dust regularly with a soft duster or soft brush, but be careful when using cleaning or polishing agents - they may harm the surface finish.

If you have any questions about your audio system,
please consult your dealer who is there to help and advise.

COMPACT disc DIGITAL AUDIO

MUSICAL FIDELITY

CONTENTS

PAGE		
3	**Safety Information :**	- Mains plug (U.K. only) - Modification warning
4	**Safety Information :**	- Laser product labelling
5	**User Information :**	- Laser type - Radio-frequency interference
6	**General Advice :**	- Installation precautions - User information
7	**Introduction / Installation :**	- Introduction - Notes on using compact discs - Cleaning - Installation - Audio connection
8	**Facilities and Connections :**	- Illustrations – front and rear panels
9	**Remote Control :**	- Operation and illustration
10	**Basic Operation :**	- Loading and playing discs - Pause function - Stop
11	**Basic Operation (continued) :**	- Track selection - Search - Displaying playback time
12	**Special Features :**	- Repeat playback - A-B repeat playback - Shuffle playback
13	**Special Features (continued) :**	- Scan introduction - Programmed play
14	**Special Features (continued) :**	- Programmed play – continued - Adjusting the display brightness
15	**Problems ?**	- Basic problem solving
16	**Specifications**	

IMPORTANT! *(U.K. only)*

This unit is supplied in the U.K. with a mains lead fitted with a moulded 13 amp plug. If, for any reason, you need to cut off the plug, please remove the fuse holder and dispose of the plug safely, out of reach of children. **It must not be plugged into a mains outlet.**

The wires in the mains lead supplied with this appliance are coloured in accordance with the following code:

Green and yellow.....Earth
Blue.....Neutral
Brown.....Live

WARNING - This appliance must be earthed

As the colours of the wires of the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked with the letter E or coloured green or green-and-yellow, or by the earth symbol : ⏚

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

If connecting to a BS1363 plug, a 13 amp fuse must be used.

WARNING:

ANY MODIFICATIONS TO THIS PRODUCT NOT EXPRESSLY APPROVED BY MUSICAL FIDELITY WHO IS THE PARTY RESPONSIBLE FOR STANDARDS COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THIS EQUIPMENT.

SAFETY INFORMATION

CLASS 1 LASER PRODUCT

This CD player has been designed and manufactured according to FDA regulations "title 21, CFR, chapter 1, sub-chapter J, based on the Radiation Control for Health and Safety Act of 1968", and is classified as a Class 1 laser product. There is no hazardous radiation during normal use because invisible radiation emitted inside this product is completely confined within the protective housing. However you must observe the following important warnings:

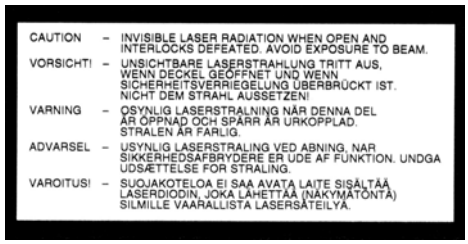
CAUTION!

THIS CD PLAYER USES INVISIBLE LASER LIGHT. WHEN THE PLAYER OPERATES, LASER LIGHT IS RADIATED INTERNALLY. DO NOT REMOVE THE PROTECTIVE HOUSINGS.

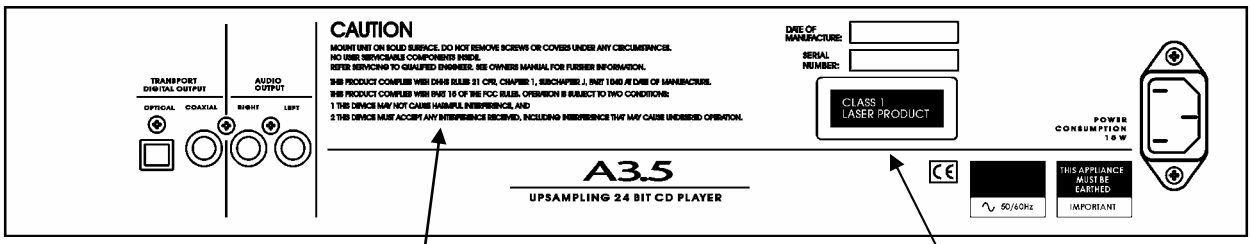
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE CAUSING EYE INJURY.

IF THIS PRODUCT DEVELOPS A FAULT, PLEASE CONTACT YOUR AUTHORISED MUSICAL FIDELITY SERVICE AGENT. DO NOT ATTEMPT TO SERVICE IT YOUR-SELF AND DO NOT CONTINUE TO USE THIS PRODUCT IN A FAULTY STATE.

WARNING AND INFORMATION LABELS : (Fitted internally to CD player mechanism)


CAUTION – INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
VORSICHT! – UNSICHTBARE LASERSTRAHLUNG TRITT AUS, WENN DECKEL GEÖFFNET UND WENN SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT IST. NICHT DEM STRAHL AUSSETZEN!
VARNING – OSYNLIG LASERSTRALNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD. STRALEN ÄR FARLIG.
ADVARSEL – USYNLIG LASERSTRALING VED ABNING, NAR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGA UDSÆTTELSE FOR STRALING.
VAROITUS! – SUOJAKOTELOA EI SAA AVATA LAITE SISÄLTÄÄ LASERDIODIN, JOKA LÄHETTÄÄ (NÄKYMÄTÖNTÄ) SILMILLE VAARALLISTA LASERSÄTEILYÄ.

REAR PANEL :



THIS PRODUCT COMPLIES WITH DHHS RULES 21 CFR, CHAPTER 1, SUBCHAPTER J, PART 1040 AT DATE OF MANUFACTURE.

THIS PRODUCT COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO TWO CONDITIONS:

1. **THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND**
2. **THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.**

USER INFORMATION

LASER INFORMATION:

Optical pick-up : Manufacturer : Sharp
Pick-up type : GH6C005B
Wavelength : 780nm

RADIO - FREQUENCY INTERFERENCE (RFI)

This equipment uses and can radiate radio frequency energy, and if not installed and operated in accordance with the instructions, may cause interference to radio communications.

However, it is designed to radiate minimal levels of RFI, and accordingly been testing to North American standards (FCC regulations - limits for a class B digital device persuant to part 15 of the rules). These requirements are intended to provide reasonable protection against excessive interference in a residential installation.

Conversely, the product has also been checked to ensure that its own operation is not adversely affected by normal background levels of RFI received externally.

However, if interference is experienced, for instance to radio or TV broadcasts, the user is recommended to try one or more of the following measures:

- Identify the source of interference by turning off power to the CD player or other equipment individually, and checking whether the problem disappears.
- Re-orientate or relocate the receiving aerial.
- Move the CD player away from the receiver.
- Connect the CD player to a mains outlet on a different circuit from the receiver.
- Consult a dealer or experienced TV/radio technician for help.

If a problem persists, please contact Musical Fidelity's service department.

GENERAL ADVICE

INSTALLATION PRECAUTIONS and USER INFORMATION

Your new A3.5 CD is designed and built to provide trouble-free performance, but as with all electronic devices it is necessary to observe a few precautions:

- Heed all warnings shown on the back of the product.
- Only connect the A3.5 CD to a mains outlet having the same voltage as marked at the back of the unit.
- Always ensure that when disconnecting and reconnecting your audio equipment the mains supply is switched off.
- Position the mains lead and signal interconnects where they are not likely to be walked on or trapped by items placed on them.
- Do not use near water, or place water-filled containers on the CD player, for example, a flower vase or potted plants. **If water does spill inside, immediately pull out the mains plug from the wall socket and inform your dealer, who should then check the unit before further use. Entry of liquid into the CD player is dangerous, and may cause electric shock or fire hazard.**
- Do not place the unit near direct heat sources such as radiators, direct sunlight or other equipment.
- Do not remove any covers or try to gain access to the inside. There are no internal adjustments or fuses you can replace yourself. Refer all service work to an authorised Musical Fidelity agent.
- **Note: Unauthorised opening of the equipment will invalidate any warranty claim.**
- Dust regularly with a soft cloth or soft brush but be careful when using cleaning or polishing agents - they may harm the surface finish.

The electronics in modern hi-fi equipment is complex and may, therefore, be adversely affected or damaged by lightning. For protection of your audio system during electrical storms, remove the mains plugs and disconnect any aerial lead.

If after-sales service is required, to help your dealer identify the A3.5 CD player please quote the serial number located on the rear panel of the unit.

INTRODUCTION / INSTALLATION

INTRODUCTION

Congratulations on the purchase of your new A3.5 CD upsampling 24 BIT CD player.

The A3.5 CD uses the latest technology for the reproduction of your CD collection.

The digital data stream is first up-sampled at 96kHz, which moves noise, jitter and distortion artefacts well above the audio band. It is then passed through a new, low noise, low distortion 24-bit digital-to-analog convertor operating at 96kHz, which allows simpler filtering of the analog output. This in turn gives an improved audio response without the need for sharp filters that degrade sound quality. The result is a CD player which gives a smoother response than previously possible with none of the "hardness" of other players.

This model fully complements the A3.5 Integrated amplifier, which enables its full potential to be realised.

NOTES ON USING COMPACT DISCS

Always hold discs by the edges and make sure they remain clean - do not touch the surface. Keep discs away from direct sunlight and heat sources, such as radiators. Clean discs with a cloth before playing them, but do not use solvents such as benzene, thinners, or antistatic spray intended for analog records. After playing, always return the disc to its case for storage.

CLEANING

Before cleaning the CD player, always turn off power at the mains switch and remove the mains plug from the wall outlet. Clean the housing and the remote control unit using a moist cloth. We do not advise the use of solvents, white spirit or thinners, as they could damage the surface finish of the unit.

INSTALLATION

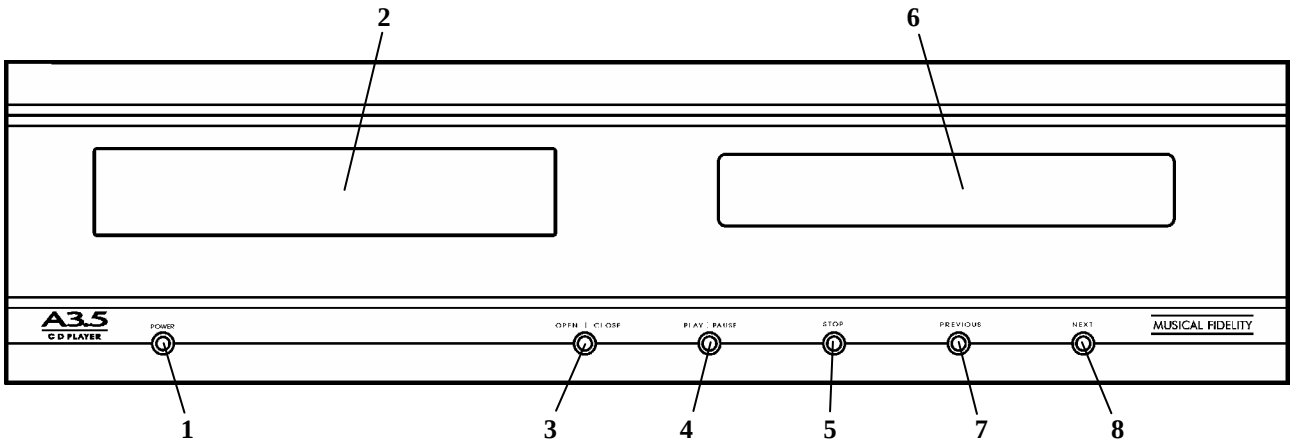
Position the CD player on a stable, horizontal surface where there is no risk of it being knocked, or subjected to vibration such as from loudspeakers.

Protect your CD player from humidity - if the unit is moved from a cold place to a warm room, moisture can form on the pickup lens inside the player, preventing the laser beam from reading the disc. If this happens, remove the CD, close the disc drawer, and leave the unit switched on for an hour or so to allow sufficient time for the moisture to evaporate.

AUDIO CONNECTION

The CD player should be connected to an amplifier input by audio cables with RCA/phono type plugs. These link the left and right AUDIO OUTPUT sockets on the rear panel of the CD player to the CD or auxiliary input sockets on the amplifier.
Do not use any sockets on the amplifier intended for "vinyl" phono cartridge input, as the sensitive circuit will overload, producing a severely distorted sound.

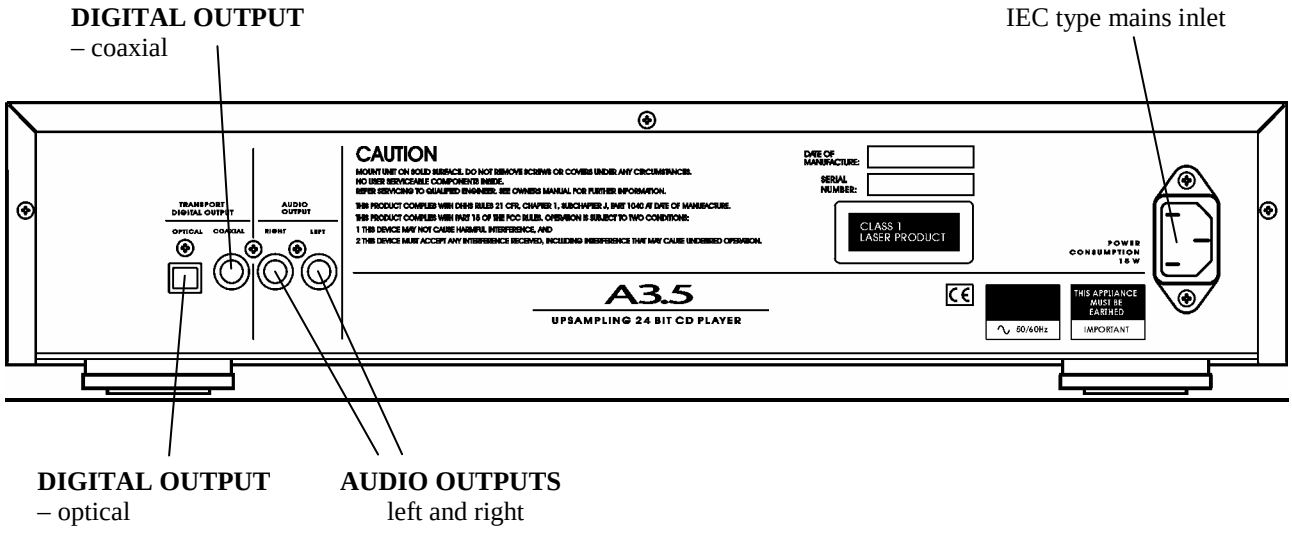
Alternatively, you can use the TRANSPORT DIGITAL OUTPUTS (coaxial or optical) for connection to an external digital-to-analog converter or digital amplifier.



FRONT PANEL

1. **POWER** mains on/off switch
2. CD transport loading drawer
3. **OPEN/CLOSE** to open and close the CD drawer
4. **PLAY/PAUSE** to start CD playback, pause, or resume playback
5. **STOP** to end CD playback
6. CD player display (incorporates infra-red remote control receiver)
7. **PREVIOUS** track selector
8. **NEXT** track selector

REAR PANEL



REMOTE CONTROL

Remote control buttons shown below enable CD player functions to be operated from a convenient distance. Remaining buttons on this universal handset are for use with other, specific, Musical Fidelity products, and have no effect on the A3.5 CD player.

Except for separate **PAUSE** and **PLAY** (see page 10), equivalent buttons on the remote control have the same functions as those on the front panel of the unit. Many other functions are only available by remote control.

As the handset uses an invisible infra-red light beam, the front edge must be pointed directly towards the receiver window at the front of the player, without visual obstruction between them.

If the range of the remote control greatly decreases, replace the batteries with new ones.
Do not mix old and new batteries - two are required, size AAA, LR03 or SUM-4. Do not dispose of used batteries in a fire.

(CD function buttons only)

1 **TIME** display change - page 11

2 Direct track access buttons

3 **PROGRAM** check - page 14

4 Scan **INTRO**duction - page 13

5 **REPEAT** track or disc - page 12

6 **SEARCH** buttons to scan forwards or backwards

7 **STOP** to end CD playback (*press either end, but not the centre*)

8 **PAUSE** to interrupt playback

9 **PLAY** to start or resume playback

10 **TRACK** back / forwards buttons

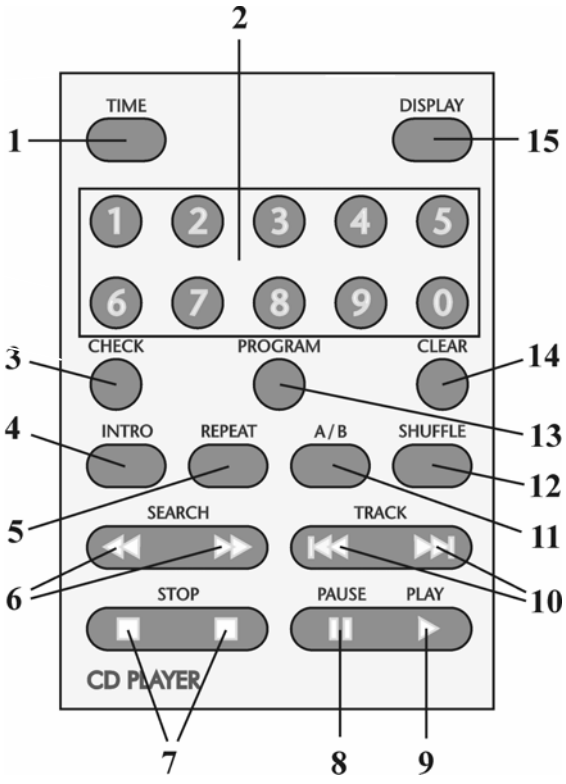
11 **A - B** repeat - page 12

12 **SHUFFLE** play - page 12

13 **PROGRAM** set - page 13

14 Program **CLEAR** button - page 13

15 **DISPLAY** brightness - page 14



BASIC OPERATION

LOADING AND PLAYING COMPACT DISCS

To load a disc, press the **OPEN/CLOSE** button to open the transport drawer.
When the drawer is fully extended, insert the disc with the label facing upwards and then press either the **OPEN/CLOSE** or **PLAY/PAUSE** button to close the transport drawer again.

If **OPEN/CLOSE** has been pressed, the disc drawer closes and the CD player scans the contents of the disc. After a short delay, the display window then shows the total number of tracks available on the CD, and total playing time.
In the following example there are 7 tracks, lasting a total of 41 minutes 2 seconds :

If mains power to the A3.5 CD player is switched on with a disc already loaded, it will automatically search for the disc.
The display then indicates **STOP**, and shows the number of tracks available on the CD and total playing time, as in the above example.

DISC PLAY

If **PLAY/PAUSE** is pressed, the CD player will begin playing from track 1, confirmed by the word **PLAY** appearing on the left of the display, with **1** in the centre and elapsed time on the right.

When all tracks on the CD have been played, the display shows **STOP** and total number of tracks on the disc.

PAUSE

Pressing the **PLAY/PAUSE** button on the front panel whilst a disc is playing pauses playback of the disc. **PAUSE** appears in the display window instead of **PLAY**. The disc will continue spinning, but the track does not advance and the A3.5 CD's output is muted.

Pressing **PLAY/PAUSE** again resumes playback from the same place.

PAUSE (Remote control)

On the remote control, **PLAY** and **PAUSE** buttons have separate functions at each end of the same button. Pressing **PLAY** will only control disc play, and pressing **PAUSE** will not resume play. Note that if the disc is already playing, pressing the **PLAY** button reverts play to the beginning of the current track.

STOP

Playback can be stopped at any time by pressing the **STOP** button once. On the remote control, press either end of the button, not the middle part.

Pressing the **STOP** button a second time opens the transport drawer.

If a disc is loaded but not playing, pressing **STOP** once will also eject the drawer.

TRACK SELECTION

To change track, the track skip buttons **PREVIOUS** and **NEXT** on the front panel can be pressed to jump forwards or backwards one track in either direction.
Corresponding **TRACK** buttons on the remote control are marked |<< and >>| .

If the unit has stopped playing, a specific track can be accessed directly by pressing either **PREVIOUS** or **NEXT** to obtain the required track number, then pressing **PLAY/PAUSE**.

TRACK SELECTION (Remote control)

Simply press the **PLAY** button to start a CD playing from the first track.

Alternatively, a specific track can be selected directly by pressing one of the ten track number buttons grouped in the centre-section of the remote control. The chosen track then plays after a short delay. To play a track number with two digits, press the second digit button on the remote control within this delay period.

If a track number is chosen which is not available on the disc, for example pressing button number 9 if the CD has only 7 tracks, the words **INVALID TRACK** are briefly displayed.

SEARCH

The **SEARCH** buttons on the remote control can be used to fast-forward or fast-rewind during playback in a similar way to a video or tape cassette player. This permits location of particular passages at high speed with the audio playback of the CD still active.

(continued) . . .

Pressing the forward-search button (>>) fast winds forwards whilst the search backwards button (<<) fast winds backwards.
As the unit searches through a track, the track time display (far right digits) will be seen to advance rapidly in the required direction. For both directions the unit will return to normal playback when the button is released.

DISPLAYING PLAYBACK TIME

There are three playback time display modes accessed progressively by pushing the **TIME** button on the remote control. The original mode (e.g. after switch on) shown below indicates the elapsed time for the currently playing track (track 1 playing, 0 minutes 34 seconds in this example) :

Pushing the **TIME** button once changes the display to show the remaining time for the complete disc with a minus sign to denote reverse counting (track 2 playing, 31 minutes 40 seconds in this example) :

Pushing the **TIME** button a second time cancels all time indication :

A third press of the **TIME** button will now bring the display back to the original (elapsed track time) mode.

SPECIAL FEATURES

REPEAT PLAYBACK

The **REPEAT** button on the remote control allows the repeated playback of either one track or all tracks on the disc.

By pressing the **REPEAT** button once, only the current track is repeated, and the display shows "**repeat track**".

If the **REPEAT** button is pressed a second time, "**repeat disc**" is displayed instead. The entire disc can then be repeated.

Pressing **REPEAT** a third time cancels repeat mode.

A-B REPEAT PLAYBACK

"A-B repeat" provides the option of playing just a certain section of the disc over and over again.

Find the beginning of the required section either by listening, or using the display time as a guide.

When the desired starting point is reached, press button **A / B** on the remote control.

The display will show "**repeat a -**".

When the disc has reached the end of the required section, press the **A / B** button again, "**repeat a - b**" will now appear in the display, and the unit continuously plays the selected part of the disc.

To cancel A-B repeat mode, press **A / B** on the remote control.

SHUFFLE PLAYBACK

The SHUFFLE feature allows tracks on the discs to be played in random sequence rather than the normal consecutive order.
Tracks are also played in a different order each time the disc is restarted, or another disc loaded.

This function is obtained by pressing **SHUFFLE** on the remote control with the unit either stopped or playing. The word "**shuffle disc**" in the display indicates that the function has been activated.

If the A3.5 CD is already playing, play will continue in random order until all tracks on the disc have been played.

Shuffle play is cancelled by pressing the **SHUFFLE** button a second time. The unit resumes normal play function, continuing to the end of the disc in normal order starting from wherever it was left by the previous random selection.

From stop mode, pressing **PLAY/PAUSE** also begins shuffle play.

If **REPEAT** is then pressed whilst in shuffle mode, a repeat shuffle function is obtained :

Pressing >>| selects the next track in random order.

SPECIAL FEATURES

SCAN INTRODUCTION

The scan-introduction function allows play back of just the start of each track on the disc, for instance to locate a preferred track by ear.

Press **INTRO** on the remote control, and if the player has stopped, the display will show :

The first ten seconds (approximately) of each track on the CD can then be played in sequence by pressing either **PLAY/PAUSE** on the front panel, or **PLAY** on the remote control.

Press **INTRO** again to cancel introduction search mode. If **INTRO** mode is cancelled while the A3.5 CD is still playing, the remainder of the entire disc will be played.

PROGRAMMED PLAY

The built-in program memory allows you to store up to 25 track numbers and then play them back in the held order. Each track is stored as a "step" in the program.

With the CD loaded and the player stopped, first press **PROGRAM** on the remote control. The following is then displayed :

On the remote control, press the numeric button of the track number corresponding to the first track you wish to store (number 3 for example).

That track number will now appear in the display :

Press **PROGRAM** again on the remote control - the next program step is selected, **(prog 2)** and the track number reverts to zero ready for a new entry :

Continue entering track numbers in the same way up to a maximum of 25. If more than 25 tracks are attempted accidentally, the memory will not accept any extra ones, and the display reverts to "**prog 1**".

Remember that when entering a single-digit track number, there is a delay of about two seconds before the display accepts the entry - this is to allow time for a second button to be pressed when a double-digit number is required.

If an incorrect entry is made, say track 9 when there are only 7 tracks available on the disc, "**INVALID TRACK**" is briefly shown, and the entry automatically cancelled.

If at any time you wish to add a track to the list, press the **CLEAR** button to obtain the next step number. Alternatively, to delete a previous entry, press **CLEAR** a second time to remove the last entry. Repeated pressing of **CLEAR** will then erase each step in reverse order.

When the last track number has been selected, press **PROGRAM** a final time, then the **PLAY** button to start the program sequence.

(continued . . .)

(continued . . .)

If you wish to check the selection before playing back your program, the **CHECK** button can be pressed to step through each program entry in turn.

If during this check sequence the **PLAY** button is pressed, the remaining part of your programmed selection will play to the end of the sequence.

Otherwise, to play all the programmed tracks from the beginning of the sequence, press **PLAY/PAUSE**, or **PLAY** on the remote control.

The >>| button may be pressed to jump to the next track in the programmed sequence, or |<< button to obtain the previous track in the sequence.

When all programmed tracks have been played, the CD player stops. The same track selection can then be played again by pressing the **PLAY/PAUSE** button on the front panel, or **PLAY** on the remote control.

To repeat a programmed sequence continually, press **REPEAT** whilst playing the program.

To cancel this mode, press **PROGRAM**.

Note:
The program contents will be cleared if you switch off the power, or open the disc drawer and load another disc. If, however, the same disc is loaded again with the power still switched on, the program sequence is retained in the memory.

DISPLAY

A3.5 CD display brightness can be controlled in three levels by pressing the **DISPLAY** button on the remote control.

The original setting is maximum brightness, but by pressing the **DISPLAY** button once, brightness is reduced, and a further press turns the display off.

However, when the display is off, pressing any button returns the brightness to normal (maximum).

PROBLEMS ?

Basic problem-solving with a CD player is similar to troubleshooting other electrical or electronic equipment. Always check the most obvious possible causes first, such as the following examples:

Problem	Probable Cause	Remedy
No power when **POWER** button is pressed	Power plug is not inserted	Plug in securely fully into rear socket
No playback when disc is loaded, "NO DISC" displayed	Disc is loaded with label side down	Re-load with label side up
No audio output, or too low level output	Connection to rest of stereo system is incorrect	Check connections
Sound is severely distorted, and volume control needs to be turned down very low	CD player audio lead is connected to phono input sockets of the amplifier	Re-connect lead to auxiliary sockets or other "line level" amplifier input
Mistracking (sound jumping)	Player is receiving vibration or shock	Change position of player away from loudspeakers
	Disc is dirty	Clean disc surface
Hum	Audio connector plug is not fully pushed in	Insert plug securely
	Connector cable is faulty	Check that the cable outer shield (screen) connection has not become damaged or detached inside the plug
Interference noise heard from radio tuner	Player is positioned too near the tuner	Keep a reasonable distance between player and tuner, or switch off player power
Remote control does not work	Player's **POWER** switch is set to off	Set switch to on
	One or more batteries fitted the wrong way round	Insert batteries correctly
	Batteries are flat	Change batteries – do not mix old and new ones
	Remote control is not pointed directly towards the front panel of the player	Ensure there is no obstruction between the remote control and player front
Remote control range has greatly reduced	Batteries are running out	Change batteries – do not mix old and new ones

Remember - the most vulnerable part of a CD playing system is the disc itself. The most likely cause of a disc not playing is that the disc itself is faulty, scratched or simply dirty. Never open the case of the A3.5 CD yourself, as this will invalidate the guarantee. If none of the above actions effect a cure, please contact your dealer or Musical Fidelity service agent.

A3.5 CD

Upsampling 24 Bit Compact Disc Player

SPECIFICATIONS

DAC architecture	24 bit Delta-Sigma (Bitstream) Dual differential 8x oversampling
Disc mechanism	Philips
Upsampling	96kHz
Frequency response	10Hz to 20kHz +0 / -0.2dB
Signal / noise ratio	> 115dB “A” weighted
Total harmonic distortion	< 0.006% 10Hz to 20kHz
Total correlated jitter	< 170 pS
Channel separation	> 100dB 20Hz to 20kHz
Linearity	< 0.2dB down to -90dB
Audio output at digital 0dB level	2.14VRMS at 1kHz nominal
Analog output	1 pair RCA connectors
Analog output impedance	50 Ohms
Digital outputs	1 optical (Toslink), 1 S/PDIF (RCA connector)
Power requirements	100 / 115 / 230V AC 50 / 60Hz (factory preset) 15 Watts
Dimensions (approximate)	440mm, 17.3 inches wide 100mm, 3.9 inches high including feet 395mm, 15.6 inches deep including terminals
Weight	10.8 kg, 22.8 lbs unit only, un-boxed 15.5 kg, 34.2 lbs in shipping carton
Standard accessories	IEC mains lead (10 Amp type), Remote control handset (A3.5 type, universal), 2 batteries size LR03 or AAA, manganese alkaline type

CE

Musical Fidelity reserves the right to make improvements which may result in specification or feature changes without notice.